DOCUMENT RESUME

ED 372 123 TM 021 968

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TITLE Changes in Faculty Salaries: 1970 to 1990.
PUB DATE Apr 94
NOTE 57p.; Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA, April 4-8, 1994).
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Change; *College Faculty; Demography; *Economic Factors; *Educational Trends; Higher Education; *Income; Institutional Characteristics; Private Colleges; Public Colleges; Sex Differences; *Teacher Salaries; Trend Analysis

ABSTRACT

College faculty purchasing power was at an all-time high in 1972-73, but then dropped during the 1970s. In the early 1980s, it began to rise and then leveled off in the past few years with the onset of another drop from the 1988-89 high. Twenty years of full-time college and university faculty members' salaries are compared with annual measures of institutional and economic activity to identify any correlations. Salaries are regarded separately for gender, public and private sectors, and for assistant professors, with data from the National Center for Education Statistics higher education reports (salary data are missing for only a few years). Contrary to expectation, faculty salary did not increase consistently with institutional income. Private college salaries are more sensitive to changes in institutional income than are public college salaries, perhaps because of the importance of private giving and tuition. College and university income is related to the gross national product. Overall, there has been a lack of improvement in female faculty salaries compared with those of males. In general, the belief that if colleges get more money, faculty will get raises was not supported. Colleges with more money are more likely to expand programs, services, and new hiring. Four tables and 12 charts present study findings. (Contains 5 references.) (SLD)

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

CHANGES IN FACULTY SALARIES: 1970 TO 1990

Presented to

AERA 1994/ERIC Acquisitions
The Catholic University of America

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4/26/94

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Prepared for the AERA Conference
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Division J,
New Orleans, LA
April 1994

Funding provided by the National Education Association

Changes in Faculty Salaries: 1970 to 1990

I. Introduction

The purchasing power of full-time faculty has risen and fallen in several long-term cycles since World War II. The purpose of this report is to identify the correlates of changes in faculty salary over the last 20 years. Faculty purchasing power was at an all-time high in 1972-73. It dropped during the 1970's and in the early 1980's began to rise again. The last few years have seen a leveling off and the onset of another drop from the last high of 1988-89.

During this 20 year period, there have been many demographic, economic, and cultural changes that might have played a part in changing faculty salaries. Demographic changes have been obvious. The postwar baby boom growth of colleges in the 1960's was followed by slower growth during the 1970's and 1980's. College enrollment kept growing, but at a much slower pace than was experienced in the 1960's. The torrid hiring pace of the 1960's was also followed by modest hiring rates during the 1970's and 1980's.

National economic dynamics also changed during the 20 years. The gas lines of 1973 marked the beginning of chronic U.S. trade deficits and slowing economic growth. The inflation of the late 1970's and early 1980's was a reality that helped run President Carter out of office. The Reagan years started with a recession and were marked by economic growth fueled by federal debt and private speculation followed by one of the longest and most unsettling postwar recessions on record starting in the late 1980's. Health and retirement programs are taking a larger share of public funds with education having to fight harder for its share of state and federal budgets. During the 20 year period, the U.S. economy was shifting from a manufacturing to a service economy. The introduction of the personal computer revolutionized the way work was done in nearly every company and government agency. The business press has been filled with stories about corporate reorganization, large scale reductions in force, and improved quality of service and goods.

Seismic cultural changes marked the 1970's and 1980's starting with the end of the Vietnam war. Most of the 20 year period was marked by increasingly conservative public policies. Student enrollments shifted away from liberal arts and social science toward business and applied majors. In 1970, 13.7 percent of the students were enrolled in business programs. By 1990, the share had grown to 22.8 percent. During the same period, liberal arts and education enrollments dropped from 52.1 percent to 39.7 percent. In addition, college students were more likely to attend college part-time in the 1980's than in previous decades.

A plausible argument can be made for one or all these significant historical trends. Either way, they influence the purchasing power of college faculty. The purpose of this analysis is to identify those factors related to changes in faculty salaries. The past will help anticipate what can be expected in the future.

A. Review of the Literature

Theorists are divided about the importance of market forces in setting faculty salaries. Market proponents have identified some results that help support their theory. Breneman and Youn (1988) reviewed human capital theory as it applies to the academic sector. The studies they reviewed confirmed that:

- graduate education increased salary;
- there is a relationship between scholarly productivity and earnings; and
- the academic labor supply cannot adjust fast enough to changes in demand so there is always a boom and bust cycle.

The market competition model for explaining changes in salaries is attractive because it is a reasonable idea. The price of things in short supply and high demand increases and those things in large supply with low demand drop in price. There is an alternative and more inclusive explanation for why market competition may not provide a totally satisfying understanding of wage changes.

The alternative to the human capital theory is the *screening model*. According to this perspective, institutions do not compete for talent based on wages. The selectivity of institutions is modified as the supply of applicants for new jobs changes. Colleges do not modify salary offers to attract new applicants. Wages are generally inflexible at the entry level.

In this model, there is little competition in the labor market. Institutional habits and customs influence academic wage rates more than any short range market imbalances. These theorists predict that the academic employers require more credentials in periods of long-term oversupply and fewer credentials in times of shortages.

Market choices may be less influential in the academic labor market than other employment sectors because colleges and universities try to improve their prestige and quality by hiring new faculty or adding new programs or services instead of reducing costs. This is done by trying to hire the best qualified applicant at the time, but not increasing salary offers to attract the preferred candidate at the time or reduce offers during times of high unemployment. As the number of new applicants for faculty positions increases, less prestigious institutions can probably hire better prepared faculty.

Given the unique characteristics of the academic labor market, the effect of supply and demand may be limited. First, college and university hiring is highly segmented by academic specialty and type of institution. An English teacher at a local community college is not in the same labor market as a research chemist at a national university. Alternate employment opportunities for some Ph.D.'s may be greater than others. For example, Ph.D.'s in business or engineering may have more employment opportunities than Ph.D.'s in history or English.

Segmentation may be expressed in terms of institutional types and academic specialties. There is significant variation in average faculty salaries received by faculty in different institutional types. Private universities pay the highest average faculty salaries that are nearly matched by public university salaries. Public and private four year colleges form the second tier of faculty salaries. Public community college faculty salaries rest at the third level with religious oriented colleges and private two-year college faculty salaries at the lowest levels.

Several other characteristics of the academic labor market operate to insulate college and university salaries from market forces. They include: 1) Available substitutes for cash such as research opportunities, sabbaticals, lighter teaching loads, liberal travel budgets, and teaching assistants. 2) Universities and colleges often operate under a formula pay schedule which keeps new faculty from being hired at significantly higher or lower levels than those specified in the institutional budget. 3) Each college locates itself in a competitive group of colleges and pays their faculty within that zone. 4) State agencies or public boards often must approve salary schedules in public institutions which means that compensation will change incrementally. These organizational mechanisms reduce the importance of supply and demand on setting salary.

Lee Hansen (1986) concludes that the most important determinant of faculty salaries is the action of elected officials. Public institutions dominate the higher education scene and set the standard for faculty pay. Private colleges and universities do not have the same market dominance.

Another reason that the market does not seem to be important in setting faculty salaries over the last twenty years is the fact that the supply of academically prepared labor market entrants exceeded the demand. The majority of newly minted graduate degree recipients do not become college faculty. Employment in government, business or industry provides a meaningful career path for many Ph.D.'s. Less than 40 percent of Ph.D.'s indicate they plan to go into academic life.

Slow growth in enrollments, the segmented character of academic employment, an oversupply of academically trained graduates, and the fact that colleges and universities provide a high level of non-cash benefits reduces the chances that obvious market forces will make a difference in average faculty salaries. Market forces may work in certain academic specialties that are in high demand and short supply. Examples include: computer science, engineering, and certain business specialties that are typically paid more in colleges and universities than other teaching specialties.

An alternate predictor of faculty salaries may be the revenues available to institutions. As colleges and universities gain more funds and increase their optimism about the future, they may be more willing to hire faculty and increase salaries. National economic growth will translate into more tax resources available to public colleges and higher tuition and gifts for private institutions. This sense of optimism will loosen budget strings and may result in higher salaries.

Several issues may influence faculty salaries that are beyond this study. For example, affirmative action has been a consideration for all 20 years. There is no reliable information on the salaries paid to minority faculty over the period. Information on gender is included. No information is included on changes in salary by academic specialty. Hansen (1986) notes greater disparity in salaries among faculty in different academic departments in the early 1980's compared to the averages reported a decade earlier.

The other factor in gauging demand for new faculty members is the need for replacement faculty. There is no consistent information available on faculty attrition over the last twenty years. Faculty replacement needs may increase in the future as the faculty hired in the 1960's begin to retire.

There is no annual information on either the number of non-teaching employees or their salaries in colleges and universities. Using different data sources than the ones employed here, Hansen and Guidugli reported (1990) that there were similar changes in faculty and administrators salaries between 1970 and the mid 1980's.

B. Overview of The Study

This study tracks 20 years of salaries paid to full-time college and university faculty members. The salaries are compared to annual measures of institutional and economic activity to identify any correlations with faculty salaries. Salaries are reported in the following manner: 1) for all faculty members, 2) separately for faculty members in public and private colleges, 3) separately for male and female faculty members, and 4) assistant professors in all sectors are reported by themselves.

To capture any difference in salary that may be attributed to the increased tenure of faculty members in 1990 compared to 1970, the salaries of assistant professors are reported separately from all faculty members. This provides an indicator of how the purchasing power of new faculty members is changing.

Information on the number of part-time faculty members is included to determine if there has been a relative increase in part-time faculty members compared to full-time. No information exists on the pay of part-time faculty members, so only the numbers of part-time faculty are reported. Measures of student-faculty ratios for all faculty members and full-time faculty members are included later in the report. Perhaps one form of compensation is lighter teaching loads.

Enrollment is accounted for in terms of full-time equivalent (FTE) in which three part-time students equal one full-time student. There has been steady growth in enrollment over the two decades although the number of high school graduates has been declining. Increasing enrollment suggests greater demand for new faculty members.

We have included the number of new Ph.D.'s produced each year. It is expected that faculty salaries should drop in relation with increased number of Ph.D.'s.

Several measures of institutional revenues are included. Measures of revenue are corrected for inflation using the Higher Education Purchasing Index (HEPI). Income includes: tuition revenue, state revenue, private revenue, federal revenue, and other revenue. These measures are all from the NCES IPEDS survey data (National Center of Education Statistics, Integrated Postsecondary Education Data System). The assumption is that as institutional income increases, after being corrected for inflation and enrollment gains, so will salaries for employees.

Alternate employment opportunities for academically trained employees may influence the salary offers made by colleges and universities. A rough measure of comparable pay is provided by listing the average salaries reported by Census for men with at least five years of college. Later in the report, average salaries for women with five years or more of college is reported to find out how they compare to male faculty salaries.

Three measures of economic activity are included in the correlations. They are the gross national product, the annual unemployment rate, and the consumer price index. The gross national product is a measure of economic growth. The unemployment rate is a measure of recession, and the consumer price index is a measure of inflation.

II. Method and Limitations

We use annual information from National Center for Education (NCES) higher education reports between the years of 1970 and 1990. Salary data were missing for the years of 1971, 1973, 1983, 1986, and 1988. A total of 16 years were reported. Other values were missing in some years. We corrected for the missing values in the calculation. The dependent variable in the analysis is the average salary of full-time faculty members on 9/10 month contracts. All financial information is reported in constant dollars. Faculty salary was corrected using the academic year CPI to generate constant income for all years. All the institutional revenue numbers were corrected for inflation using the Higher Education Purchasing Index (HEPI). All of the revenue numbers were reported on a per full-time equivalent student basis. An increase in aggregate revenue that just kept up with enrollment and inflation would be reported as no change in income.

Public and private college revenue is reported separately. The revenue mix is different for public and private colleges with state governments playing a bigger role in public colleges and tuition in private colleges..

SPSS produced the correlation coefficients included in Table 1 for all full-time faculty members, Table 2 for public college faculty, Table 3 for private college faculty, and Table 4 for all assistant professors.

Availability of historical data in a usable form was the major limitation of this analysis. The same data limitation kept us from doing a separate analysis for public two-year college faculty and public four-year college faculty members. There is good reason to believe that the factors influencing faculty salaries in the two types of institutions would be different. The same problem kept us from reviewing universities separately from other four-year institutions. It is not possible to report the number of non-teaching staff members in colleges and universities along with their salaries because

consistent historical data were not available. There is no consistent data on changes in faculty salaries by academic specialty for the twenty-year period. Finally, we wanted to include the cash value of faculty benefits to report the total compensation of full-time faculty members. Complete historical information on benefits is not available.

III. Results

The first set of charts provides a visual indication of what happened with some important variables over the 21-year period under consideration. Chart 1 displays public and private college faculty salaries in constant dollars. The average faculty member has lost purchasing power over the two decades. Private college faculty salaries caught up with public college faculty salaries during the 1980's.

Chart 2 describes the difference between public two- and four-year college faculty salaries. Community college faculty members have lost purchasing power compared with four-year college faculty members. The decline in all faculty salaries between 1970 and 1990 can be attributed to this loss among community college faculty members.

Chart 3 provides information on the differences between the average salaries of all faculty and assistant professors. The gap has widened between the two groups over the years. A $5,000 difference had turned into a $7,500 gap in 1990. The salaries of assistant professors in 1990 were well below their level in 1970.

Chart 4 reviews the changes in the salaries paid to female faculty members compared to male faculty members. The gap has widened over the 21-year period. This is contrary to expectations. As will is seen later, the salaries of women with five years of college or more have gained on the average salary of their male peers since 1970.

Chart 5 compares the average salary of men and women with five years or more of college. There is a slight closing of the difference in salaries over the period. The average salary of college educated men has declined while the average salary of college educated women improved since 1970.

Chart 6 suggests the close relationship between the average salaries of all faculty and men with five or more years of education. The difference has almost remained steady over the 21 year period.

Chart 7 illustrates the nearly constant increase in institutional revenues. There was some slowing in the early 1980's but the rate of increase was greater in the 1980's than the 1970's. This growth is expressed in constant dollars. Higher education revenue increased from $85 billion in 1970 to $150 billion in 1990. The average increase has been $3.1 billion a year.

Chart 8 describes the change in constant dollar revenues per FTE student for public, private, and all institutions. Both sectors were up and down during the 1970's with growth in the 1980's. The increases were greater for private colleges and universities than public colleges that showed more signs of leveling off and declining in the latter part of the decade. In 1970 there was $12,634 in revenue per student that grew to $15,250 in 1990.

Chart 9 describes the growth in FTE enrollment between 1970 and 1990. There were two periods of slight decline with robust growth during the rest of the years. This increase took place during a 10 percent decline in the number of high school graduates.

Chart 10 traces the gross national product over the two decades. The three recessions are clear on this chart: one started in 1974, the next in 1980, and the third in 1989.

Chart 11 provides a different look at the economic cycles, the annual unemployment rate that peaked in 1983 at over 9.5 percent. The CPI is described in Chart 12. The sharp inflationary increase in 1973 was related to the OPEC oil embargo and the 13.5 percent inflation in 1980 was enough to see Jimmy Carter out of office.

Turning to Table 2, Public College and University Salaries, there are only three significant relationships between other variables and public college faculty salaries. The significant relationships are with unemployment, the CPI, and the salary of males with at least five years of college education. None of the revenue measures or the production of new Ph.D.s are significantly related to the average salary of faculty members.

In Table 3, Private College Faculty Salary, there is a different pattern than appeared for all faculty and public faculty salaries. "Private Revenues" and "Other Revenue" have a positive relationship with private college and university faculty salary. In addition, the number of new Ph.D.s has a positive relationship. The CPI has a significant negative relationship and the salary of male college graduates has a significant positive relationship. The unemployment rate is not significantly related to private college and university faculty salaries. Private college faculty salaries are more sensitive to changes in institutional income than public college faculty salaries.

Table 4 reports correlations with the average assistant professor salary. There is a different pattern for the correlations in this sequence. Assistant professors' salaries drop when the number of part-time faculty increases. Another relationship that has not appeared before is the negative relationship between FTE enrollment and assistant professors' salaries. Enrollment goes up as assistant professors' salaries go down. There is a negative relationship between both unemployment and the average

assistant professors' salary and the CPI and the average assistant professors' salary. Finally, there is a high positive correlation between the average assistant professors' salary and the average salary of males with five years or more of college.

IV. Discussion

Results of the study were contrary to expectations. Faculty salary did not increase consistently with increases in institutional income. The only revenue that was significantly correlated with faculty salaries was "Other Revenue." Other revenue includes income from local governments, endowment earnings, recovery of indirect costs, auxiliary enterprise revenue, student aid grants, major service programs, and other educational and general revenue. This income represents about 20 percent of total revenue for all colleges, but over 30 percent in private colleges and universities.

An explanation that is consistent with the results is that any increase in institutional income, at least in public colleges and universities, is used to expand college and university activities. It is not used to increase faculty salaries. Income in public colleges and universities is used to hire more faculty and presumably other staff. The close relationship between income and enrollment is because enrollment generates the largest share of income in most colleges.

The evidence suggests that private college faculty salaries are more sensitive to changes in institutional income than public college faculty salaries. This may reflect the fact that private colleges are more dependent on private giving and tuition than public colleges. Private colleges increased revenues per student sharply in the 1980's and used at least part of that money to increase faculty salaries.

The number of full-time faculty members increased as tuition revenue, state revenue, private revenue, and total revenue escalated. The only two streams of revenue not associated with increases in the number of full-time faculty members were federal revenue and other revenue. Federal revenue has increased over the observed time, but the increases have been erratic. As expected, there is a positive relationship between increasing enrollment and number of full-time faculty members. There is a cluster of institutional activity variables that includes income, enrollment, new Ph.D.'s, and number of faculty members. Changes in these related institutional activities have very little to do with the salaries paid to full-time faculty.

College and university income is related to changes in the gross national product. Slow economic growth reflects slow growth in college revenues. Several institutional measures are positively related to increases in the gross national product. The number of full-time faculty members increases with GNP as does the number of part-time faculty members. Most revenue measures increase with GNP. Tuition revenue, state revenue, private revenue, other revenue, and total revenue all increase with GNP. The

only revenue stream that does not increase with GNP is federal revenue. Full-time enrollment increases as does the number of Ph.D.'s graduated as GNP increases. General economic growth translates into growth in higher education.

This explanation helps understand the unexpected relationship between new Ph.D.'s and faculty salaries. As the number of new Ph.D.'s increase, faculty salaries increase. This is contrary to the assumption that an oversupply of new job candidates would result in lower salaries. Increased institutional activity has little to do with average salaries. Growth in enrollment had nothing to do with changes in faculty salary. The revenue source, other revenue, associated with changes in faculty salaries includes several revenue sources that are not as likely to be enrollment driven and may provide flexibility in the budgeting process.

Faculty salaries are relative to other professional salaries. There is a normative standard used to judge the appropriateness of faculty salaries compared to salaries of college trained employees. There is a close positive relationship between the salaries of full-time faculty members and salaries paid to males with five or more years of college. The difference between the two may represent the non-salary benefits of teaching such as summers off.

Bad economic times reduce faculty salaries. Average faculty salary is negatively related to changes in the CPI and unemployment rate. As inflation increases, faculty salaries decline and as unemployment increases faculty salaries decline. Salaries of other professionals are also sensitive to changes in the CPI and the unemployment rate. Stable economic conditions benefit college faculty.

Despite the cries of institutional difficulties and reduced income, the higher education enterprise has grown in this nation over the last 20 years. Revenues have grown faster than the combined effects of inflation and enrollment increases. The growth is reflected in more employees, but not in improved purchasing power for full-time faculty members.

Colleges and universities, as employers, appear to make a judgement about what a fair market value is for faculty members. The changes in average faculty salaries closely reflect the changes in the average salaries paid for college educated employees. This market judgement is slightly affected by funds available to the colleges and universities.

Assistant professors have lost salary over the two decades compared to the average faculty member. Assistant professors' salaries have dropped relative to all faculty members over the time period. Besides the relationship between CPI and unemployment, assistant professors' salaries decline when the number of part-time faculty increases. The salaries of assistant professors also drop when enrollment

increases. This pair of relationships suggests the possibility that colleges have been hiring more part-time faculty members instead of new full-time faculty members to cover increasing enrollments.

Community college faculty members have fallen behind four-year college faculty salaries with the greatest divergence in the 1980's. There is not enough information in our study to suggest why this is happening. The issue is important enough to warrant further study. The trend suggests that there may be greater divergence in faculty salaries now than in the early 1970's. Without further information it is not possible to do anything, but speculate about why this is happening. It may reflect the effect of state tax limits, a shift in emphasis from academic to vocational programs in the community colleges, or a glut of job applicants.

An unexpected finding was the lack of improvement in female faculty salaries compared with males. Female faculty members lost $1,000 to males over the two decades. Although the loss is minimal, it is in the wrong direction. Women with five year or more years of education closed the salary gap with males by $1,800. Specific reasons for this difference are beyond the purpose of this study. Earlier signs suggested that female academics should show some improvement in salaries. More women are achieving their doctorate and entering traditionally male dominated fields now than was the case 20 years ago. It may be that female faculty members are still early in their seniority process and they are more likely to be in community colleges compared to men. This would be consistent with other information presented in this report. The issue is worth pursuing in other research projects.

This study does not provide any support for the idea that the relationship between growth in higher education enrollment and availability of new Ph.D.'s has very much to do with faculty salaries. There is no relationship between changes in enrollment and changes in faculty salaries. There is a significant difference in the wrong direction between the number of new Ph.D.'s and faculty salaries. The more new degree holders, the higher the salaries. One possible explanation for this negative relationship is that degree production is an index of institutional activity and growth that has little to do with changes faculty salary.

The cyclical boom and bust cycle in faculty salaries predicted by the market oriented economists does not seem to appear in the period reviewed. Average faculty members' salary changes are closely related to economic cycles. There is a chronic oversupply of new Ph.D.'s compared to the needs of the academic labor market.

Since there are so many potential applicants for each faculty job, it may be expected that the effects of specific market adjustments are not evident. Where the market forces may be at work is in the salaries being paid to assistant professors. The oversupply of new applicants and the use of part-time faculty members by colleges and

universities to meet the needs of growing enrollment may reflect a market sensitive policy change in higher education.

One of the goals of this research was to find predictors of faculty salaries. The best correlate with faculty salaries is the close relationship with the salaries of college educated workers. Colleges and universities maintain a rough equity with salaries in the economy for highly educated workers. The gap between academics and other highly skilled workers reflects the value of non-cash rewards available to college and university faculty members.

Periods of either unemployment or inflation suggest that faculty salaries will decline when measured in purchasing power.

The belief that if the college got more money, then the faculty will get the raise, was not supported except in the case of funds that are not driven by enrollment. Most of the new revenue generated by enrollment goes for expanding programs and services.

This report suggests that the experience at the local level may be more complicated than the national averages suggest. There will always be unique local events that define the pivotal issue in salary decisions.

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TABLE 1
CORRELATION MATRIX
ALL INSTITUTIONS

	SAL	FTFAC	PTFAC	TUITREV	STREV	PRIVREV	FEDREV	OTHREV	FTE	PHD	GNP	UNEMP	CPI	SALOTH
SAL	1.0000	-.2152	-.4344	.3171	-.2362	.2431	-.1815	.6058	-.2610	.5432	.1463	-.5751	-.6665	.9605
	(16)	(14)	(14)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)
	P= .	P= .460	P= .121	P= .231	P= .379	P= .364	P= .501	P= .013	P= .329	P= .030	P= .589	P= .020	P= .005	P= .000
FTFAC	-.2152	1.0000	.9505	.7496	.7912	.8030	.3457	.0878	.9544	.3459	.8481	.3602	-.1022	-.4049
	(14)	(18)	(18)	(17)	(17)	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)
	P= .460	P= .	P= .000	P= .001	P= .000	P= .000	P= .174	P= .737	P= .000	P= .160	P= .000	P= .142	P= .686	P= .096
PTFAC	-.4344	.9505	1.0000	.7145	.8519	.7884	.3550	.0013	.9856	.1818	.8438	.4456	-.0625	-.5342
	(14)	(18)	(18)	(17)	(17)	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)
	P= .121	P= .000	P= .	P= .001	P= .000	P= .000	P= .162	P= .996	P= .000	P= .470	P= .000	P= .064	P= .805	P= .022
TUITREV	.3171	.7496	.7145	1.0000	.6486	.9832	.0437	.7396	.7528	.6933	.9237	-.1994	-.5653	.2618
	(16)	(17)	(17)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .231	P= .001	P= .001	P= .	P= .002	P= .000	P= .855	P= .000	P= .000	P= .001	P= .000	P= .399	P= .009	P= .265
STREV	-.2362	.7912	.8519	.6486	1.0000	.7587	.5998	.1173	.7279	.1863	.8391	-.0269	-.1232	-.2078
	(16)	(17)	(17)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .379	P= .000	P= .000	P= .002	P= .	P= .000	P= .005	P= .622	P= .000	P= .432	P= .000	P= .910	P= .605	P= .379
PRIVREV	.2431	.8030	.7884	.9832	.7587	1.0000	.2008	.6270	.7998	.6472	.9551	-.1651	-.4892	.1775
	(16)	(17)	(17)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .364	P= .000	P= .000	P= .000	P= .000	P= .	P= .396	P= .003	P= .000	P= .002	P= .000	P= .487	P= .029	P= .454
FEDREV	-.1815	.3457	.3550	.0437	.5998	.2008	1.0000	-.4500	.3130	.0808	.3042	-.0807	.4062	-.2702
	(16)	(17)	(17)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .501	P= .174	P= .162	P= .855	P= .005	P= .396	P= .	P= .046	P= .179	P= .735	P= .192	P= .735	P= .076	P= .249
OTHREV	.6058	.0878	.0013	.7396	.1173	.6270	-.4500	1.0000	.1842	.6316	.5238	-.5339	-.6672	.6530
	(16)	(17)	(17)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .013	P= .737	P= .996	P= .000	P= .622	P= .003	P= .046	P= .	P= .437	P= .003	P= .018	P= .015	P= .001	P= .002
FTE	-.2610	.9544	.9856	.7528	.7279	.7998	.3130	.1842	1.0000	.4538	.8312	.3064	-.0889	-.3899
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= .329	P= .000	P= .000	P= .000	P= .000	P= .000	P= .179	P= .437	P= .	P= .039	P= .000	P= .177	P= .702	P= .081
PHD	.5432	.3459	.1818	.6933	.1863	.6472	.0808	.6316	.4538	1.0000	.6056	-.3984	-.3058	.4806
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= .030	P= .160	P= .470	P= .001	P= .432	P= .002	P= .735	P= .003	P= .039	P= .	P= .004	P= .074	P= .178	P= .027

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TABLE 1, CONTINUED
CORRELATION MATRIX
ALL INSTITUTIONS

	SAL	FTFAC	PTFAC	TUITREV	STREV	PRIVREV	FEDREV	OTHREV	FTE	PHD	GNP	UNEMP	CPI	SALOTH
GNP	1463	8481	8438	9237	8391	9551	3042	5238	8312	6056	1.0000	-.1293	-.4032	0594
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= 589	P= 000	P= 000	P= 000	P= 000	P= 000	P= 192	P= 018	P= 000	P= 004	P= .	P= 576	P= 070	P= 798
UNEMP	-5751	3602	4456	-1994	-0269	-1651	-0807	-5339	3064	-3984	-1293	1.0000	0134	-6028
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= 020	P= 142	P= 064	P= 399	P= 910	P= 487	P= 735	P= 015	P= 177	P= 074	P= 576	P= .	P= 954	P= 004
CPI	-6665	-1022	-0625	-5653	-1232	-4892	4062	-6672	-0889	-3058	-4032	0134	1.0000	-6120
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= 005	P= 686	P= 805	P= 009	P= 605	P= 029	P= 076	P= 001	P= 702	P= 178	P= 070	P= 954	P= .	P= 003
SALOTH	9605	-4049	-5342	2618	-2078	1775	-2702	6530	-3899	4806	0594	-6028	-6120	1.0000
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= 000	P= 096	P= 022	P= 265	P= 379	P= 454	P= 249	P= 002	P= 081	P= 027	P= 798	P= 004	P= 003	P= .

TABLE 2
CORRELATION MATRIX
PUBLIC INSTITUTIONS

	SALPUB	FAC_PUB	TUIT_PUB	ST_PUB	PRIV_PUB	FED_PUB	OTH_PUB	FTE_PUB	PHD	GNP	UNEMP	CPI	SALOTH
SALPUB	1.0000	-.4710	.3027	-.3741	.0938	-.1005	.5096	-.3080	.4916	.0790	-.5720	-.6382	.9519
	(16)	(14)	(15)	(15)	(15)	(15)	(15)	(15)	(16)	(16)	(16)	(16)	(16)
	P=	P= .089	P= .273	P= .170	P= .740	P= .721	P= .052	P= .264	P= .053	P= .771	P= .021	P= .008	P= .000
FAC_PUB	-.4710	1.0000	.6603	.7850	.8430	-.1442	-.0190	.9779	.1950	.8247	.4447	-.0143	-.5458
	(14)	(18)	(16)	(16)	(16)	(16)	(16)	(17)	(18)	(18)	(18)	(18)	(18)
	P= .089	P= .	P= .005	P= .000	P= .000	P= .594	P= .944	P= .000	P= .438	P= .000	P= .064	P= .955	P= .019
TUIT_PUB	.3027	.6603	1.0000	.6183	.9605	-.5166	.4610	.6881	.6954	.9002	-.1475	-.6082	.2857
	(15)	(16)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
	P= .273	P= .005	P= .	P= .005	P= .000	P= .024	P= .047	P= .001	P= .001	P= .000	P= .547	P= .006	P= .236
ST_PUB	-.3741	.7850	.6183	1.0000	.7234	-.1840	.0310	.6552	.0454	.7529	.1592	-.2273	-.2772
	(15)	(16)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
	P= .170	P= .000	P= .005	P= .	P= .000	P= .451	P= .900	P= .002	P= .854	P= .000	P= .515	P= .349	P= .251
PRIV_PUB	.0938	.8430	.9605	.7234	1.0000	-.3785	.3176	.8406	.6523	.9625	-.1031	-.4119	.0814
	(15)	(16)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
	P= .740	P= .000	P= .000	P= .000	P= .	P= .110	P= .185	P= .000	P= .002	P= .000	P= .674	P= .080	P= .741
FED_PUB	-.1005	-.1442	-.5166	-.1840	-.3785	1.0000	-.5407	-.1180	-.1975	-.3244	.0332	.5556	-.2172
	(15)	(16)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
	P= .721	P= .594	P= .024	P= .451	P= .110	P= .	P= .017	P= .631	P= .418	P= .175	P= .893	P= .014	P= .372
OTH_PUB	.5096	-.0190	.4610	.0310	.3176	-.5407	1.0000	-.1001	.2511	.2864	-.3873	-.5786	.5046
	(15)	(16)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
	P= .052	P= .944	P= .047	P= .900	P= .185	P= .017	P= .	P= .683	P= .300	P= .234	P= .101	P= .009	P= .028
FTE_PUB	-.3080	.9779	.6881	.6552	.8406	-.1180	-.1001	1.0000	.5049	.8502	.2353	-.0149	-.3685
	(15)	(17)	(19)	(19)	(19)	(19)	(19)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .264	P= .000	P= .001	P= .002	P= .000	P= .631	P= .683	P= .	P= .023	P= .000	P= .318	P= .950	P= .110
PHD	.4916	.1950	.6954	.0454	.6523	-.1975	.2511	.5049	1.0000	.6056	-.3984	-.3058	.4806
	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(20)	(21)	(21)	(21)	(21)	(21)
	P= .053	P= .438	P= .001	P= .854	P= .002	P= .418	P= .300	P= .023	P= .	P= .004	P= .074	P= .178	P= .027
GNP	.0790	.8247	.9002	.7529	.9625	-.3244	.2864	.8502	.6056	1.0000	-.1293	-.4032	.0594
	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(20)	(21)	(21)	(21)	(21)	(21)
	P= .771	P= .000	P= .000	P= .000	P= .000	P= .175	P= .234	P= .000	P= .004	P= .	P= .576	P= .070	P= .798

TABLE 2, CONTINUED
CORRELATION MATRIX
PUBLIC INSTITUTIONS

	SALPUB	FAC_PUB	TUIT_PUB	ST_PUB	PRIV_PUB	FED_PUB	OTH_PUB	FTE_PUB	PHD	GNP	UNEMP	CPI	SALOTH
UNEMP	-.5720	.4447	-.1475	.1592	-.1031	.0332	-.3873	.2353	-.3984	-.1293	1.0000	.0134	-.6028
	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(20)	(21)	(21)	(21)	(21)	(21)
	P= .021	P= .064	P= .547	P= .515	P= .674	P= .893	P= .101	P= .318	P= .074	P= .576	P= .	P= .954	P= .004
CPI	-.6382	-.0143	-.6082	-.2273	-.4119	.5556	-.5786	-.0149	-.3058	-.4032	.0134	1.0000	-.6120
	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(20)	(21)	(21)	(21)	(21)	(21)
	P= .008	P= .955	P= .006	P= .349	P= .080	P= .014	P= .009	P= .950	P= .178	P= .070	P= .954	P= .	P= .003
SALOTH	.9519	-.5458	.2857	-.2772	.0814	-.2172	.5046	-.3685	.4806	.0594	-.6028	-.6120	1.0000
	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(20)	(21)	(21)	(21)	(21)	(21)
	P= .000	P= .019	P= .236	P= .251	P= .741	P= .372	P= .028	P= .110	P= .027	P= .798	P= .004	P= .003	P= .

TABLE 3
CORRELATION MATRIX
PRIVATE INSTITUTIONS

	SALPRIV	FAC_PRIV	TUIT_PRV	ST_PRIV	PRIV_PRV	FED_PRIV	OTH_PRIV	FTE_PRIV	PHD	GNP	UNEMP	CPI	SALOTH
SALPRIV	1.0000	.1309	.4772	.4594	.5155	-.2164	.6300	.0783	.7086	.3705	-.4804	-.7427	.9356
	(16)	(14)	(15)	(15)	(15)	(15)	(15)	(15)	(16)	(16)	(16)	(16)	(16)
	P= .	P= .656	P= .072	P= .085	P= .049	P= .439	P= .012	P= .782	P= .002	P= .158	P= .060	P= .001	P= .000
FAC_PRIV	.1309	1.0000	.9254	.8537	.7966	.6737	.2920	.9094	.4140	.8988	.2960	-.2684	-.2782
	(14)	(18)	(16)	(16)	(16)	(16)	(16)	(17)	(18)	(18)	(18)	(18)	(18)
	P= .656	P= .	P= .000	P= .000	P= .000	P= .004	P= .272	P= .000	P= .088	P= .000	P= .233	P= .282	P= .264
TUIT_PRV	.4772	.9254	1.0000	.8858	.9208	.5563	.6692	.8181	.7084	.9121	-.1517	-.4453	.1767
	(15)	(16)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
	P= .072	P= .000	P= .	P= .000	P= .000	P= .013	P= .002	P= .000	P= .001	P= .000	P= .535	P= .056	P= .469
ST_PRIV	.4594	.8537	.8858	1.0000	.8968	.7227	.4324	.7146	.7129	.8736	-.1869	-.2648	.1484
	(15)	(16)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
	P= .085	P= .000	P= .000	P= .	P= .000	P= .000	P= .064	P= .001	P= .001	P= .000	P= .444	P= .273	P= .544
PRIV_PRV	.5155	.7966	.9208	.8968	1.0000	.6513	.5188	.6376	.6151	.8104	-.0795	-.4157	.2066
	(15)	(16)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
	P= .049	P= .000	P= .000	P= .000	P= .	P= .003	P= .023	P= .003	P= .005	P= .000	P= .746	P= .077	P= .396
FED_PRIV	-.2164	.6737	.5563	.7227	.6513	1.0000	-.1895	.6159	.2292	.6535	.1610	.2261	-.4511
	(15)	(16)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
	P= .439	P= .004	P= .013	P= .000	P= .003	P= .	P= .437	P= .005	P= .345	P= .002	P= .510	P= .352	P= .053
OTH_PRIV	.6300	.2920	.6692	.4324	.5188	-.1895	1.0000	.3202	.6420	.4545	-.4857	-.5703	.0033
	(15)	(16)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
	P= .012	P= .272	P= .002	P= .064	P= .023	P= .437	P= .	P= .181	P= .003	P= .051	P= .035	P= .011	P= .006
FTE_PRIV	.0783	.9094	.8181	.7146	.6376	.6159	.3202	1.0000	.4550	.9133	.1630	-.2742	-.2644
	(15)	(17)	(19)	(19)	(19)	(19)	(19)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .782	P= .000	P= .000	P= .001	P= .003	P= .005	P= .181	P= .	P= .044	P= .000	P= .492	P= .242	P= .260
PHD	.7086	.4140	.7084	.7129	.6151	.2292	.6420	.4550	1.0000	.6056	-.3984	-.3058	.4806
	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(20)	(21)	(21)	(21)	(21)	(21)
	P= .002	P= .088	P= .001	P= .001	P= .005	P= .345	P= .003	P= .044	P= .	P= .004	P= .074	P= .178	P= .027
GNP	.3705	.8988	.9121	.8736	.8104	.6535	.4545	.9133	.6056	1.0000	-.1293	-.4032	.0594
	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(20)	(21)	(21)	(21)	(21)	(21)
	P= .158	P= .000	P= .000	P= .000	P= .000	P= .002	P= .051	P= .000	P= .004	P= .	P= .576	P= .070	P= .798

TABLE 3, CONTINUED
CORRELATION MATRIX
PRIVATE INSTITUTIONS

	SALPRIV	FAC_PRIV	TUIT_PRV	ST_PRIV	PRIV_PRV	FED_PRIV	OTH_PRIV	FTE_PRIV	PHD	GNP	UNEMP	CPI	SALOTH
UNEMP	-.4804	2960	-.1517	-.1869	-.0795	.1610	-.4857	.1630	-.3984	-.1293	1.0000	.0134	-.6028
	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(20)	(21)	(21)	(21)	(21)	(21)
	P= .060	P= .233	P= .535	P= .444	P= .746	P= .510	P= .035	P= .492	P= .074	P= .576	P= .	P= .954	P= .004
CPI	-.7427	-.2684	-.4453	-.2648	-.4157	.2261	-.5703	-.2742	-.3058	-.4032	.0134	1.0000	-.6120
	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(20)	(21)	(21)	(21)	(21)	(21)
	P= .001	P= .282	P= .056	P= .273	P= .077	P= .352	P= .011	P= .242	P= .178	P= .070	P= .954	P= .	P= .003
SALOTH	9356	-.2782	.1767	.1484	.2066	-.4511	.6033	-.2644	.4806	.0594	-.6028	-.6120	1.0000
	(16)	(18)	(19)	(19)	(19)	(19)	(19)	(20)	(21)	(21)	(21)	(21)	(21)
	P= .000	P= .264	P= .469	P= .544	P= .396	P= .053	P= .006	P= .260	P= .027	P= .798	P= .004	P= .003	P= .

TABLE 4
CORRELATION MATRIX
ASSISTANT PROFESSORS

	ASST_SAL	FTFAC	PTFAC	TUITREV	STREV	PRIVREV	FEDREV	OTHREV	FTE	PHD	GNP	UNEMP	CPI	SALOTH
ASST_SAL	1.0000	-.4605	-.6580	.0516	-.4566	-.0330	-.2355	.4665	-.5149	.3503	-.1353	-.5729	-.5358	.9231
	(16)	(14)	(14)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)
	P= .	P= .098	P= .011	P= .849	P= .075	P= .903	P= .380	P= .069	P= .041	P= .183	P= .617	P= .020	P= .032	P= .000
FTFAC	-.4605	1.0000	.9505	.7496	.7912	.8030	.3457	.0878	.9544	.3459	.8481	.3602	-.1022	-.4049
	(14)	(18)	(18)	(17)	(17)	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)
	P= .098	P= .	P= .000	P= .001	P= .000	P= .000	P= .174	P= .737	P= .000	P= .160	P= .000	P= .142	P= .686	P= .096
PTFAC	-.6580	.9505	1.0000	.7145	.8519	.7884	.3550	.0013	.9856	.1818	.8438	.4456	-.0625	-.5342
	(14)	(18)	(18)	(17)	(17)	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)
	P= .011	P= .000	P= .	P= .001	P= .000	P= .000	P= .162	P= .996	P= .000	P= .470	P= .000	P= .064	P= .805	P= .022
TUITREV	.0516	.7496	.7145	1.0000	.6486	.9832	.0437	.7396	.7528	.6933	.9237	-.1994	-.5653	.2618
	(16)	(17)	(17)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .849	P= .001	P= .001	P= .	P= .002	P= .000	P= .855	P= .000	P= .000	P= .001	P= .000	P= .399	P= .009	P= .265
STREV	-.4566	.7912	.8519	.6486	1.0000	.7587	.5998	.1173	.7279	.1863	.8391	-.0269	-.1232	-.2078
	(16)	(17)	(17)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .075	P= .000	P= .000	P= .002	P= .	P= .000	P= .005	P= .622	P= .000	P= .432	P= .000	P= .910	P= .605	P= .379
PRIVREV	-.0330	.8030	.7884	.9832	.7587	1.0000	.2008	.6270	.7998	.6472	.9551	-.1651	-.4892	.1775
	(16)	(17)	(17)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .903	P= .000	P= .000	P= .000	P= .000	P= .	P= .396	P= .003	P= .000	P= .002	P= .000	P= .487	P= .029	P= .454
FEDREV	-.2355	.3457	.3550	.0437	.5998	.2008	1.0000	-.4500	.3130	.0808	.3042	-.0807	.4062	-.2702
	(16)	(17)	(17)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .380	P= .174	P= .162	P= .855	P= .005	P= .396	P= .	P= .046	P= .179	P= .735	P= .192	P= .735	P= .076	P= .249
OTHREV	.4665	.0878	.0013	.7396	.1173	.6270	-.4500	1.0000	.1842	.6316	.5238	-.5339	-.6672	.6530
	(16)	(17)	(17)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	P= .069	P= .737	P= .996	P= .000	P= .622	P= .003	P= .046	P= .	P= .437	P= .003	P= .018	P= .015	P= .001	P= .002
FTE	-.5149	.9544	.9856	.7528	.7279	.7998	.3130	.1842	1.0000	.4538	.8312	.3064	-.0889	-.3899
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= .041	P= .000	P= .000	P= .000	P= .000	P= .000	P= .179	P= .437	P= .	P= .039	P= .000	P= .177	P= .702	P= .081
PHD	.3503	.3459	.1818	.6933	.1863	.6472	.0808	.6316	.4538	1.0000	.6056	-.3984	-.3058	.4806
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= .183	P= .160	P= .470	P= .001	P= .432	P= .002	P= .735	P= .003	P= .039	P= .	P= .004	P= .074	P= .178	P= .027

TABLE 4, CONTINUED
CORRELATION MATRIX
ASSISTANT PROFESSORS

	ASST_SAL	FTFAC	PTFAC	TUITREV	STREV	PRIVREV	FEDREV	OTHREV	FTE	PHD	GNP	UNEMP	CPI	SALOTH
GNP	-.1353	.8481	.8438	.9237	.8391	.9551	.3042	.5238	.8312	.6056	1.0000	-.1293	-.4032	.0594
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= .617	P= .000	P= .000	P= .000	P= .000	P= .000	P= .192	P= .018	P= .000	P= .004	P= .	P= .576	P= .070	P= .798
UNEMP	-.5729	.3602	.4456	-.1994	-.0269	-.1651	-.0807	-.5339	.3064	-.3984	-.1293	1.0000	.0134	-.6028
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= .020	P= .142	P= .064	P= .399	P= .910	P= .487	P= .735	P= .015	P= .177	P= .074	P= .576	P= .	P= .954	P= .004
CPI	-.5358	-.1022	-.0625	-.5653	-.1232	-.4892	.4062	-.6672	-.0889	-.3058	-.4032	.0134	1.0000	-.6120
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= .032	P= .686	P= .805	P= .009	P= .605	P= .029	P= .076	P= .001	P= .702	P= .178	P= .070	P= .954	P= .	P= .003
SALOTH	.9231	-.4049	-.5342	.2618	-.2078	.1775	-.2702	.6530	-.3899	.4806	.0594	-.6028	-.6120	1.0000
	(16)	(18)	(18)	(20)	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(21)
	P= .000	P= .096	P= .022	P= .265	P= .379	P= .454	P= .249	P= .002	P= .081	P= .027	P= .798	P= .004	P= .003	P= .

VARIABLE DEFINITIONS

Variable Name	Definition
ASST_SAL	Average salary for assistant professors on 9/10 month contracts for all institutions, constant 1990 dollars.
CPI	Consumer price index.
FAC_PRIV	Full-time and part-time senior instructional faculty in private institutions.
FAC_PUB	Full-time senior instructional faculty in public institutions.
FED_PRIV	Institutional revenues from the federal government per full-time equivalent student, private institutions.
FED_PUB	Institutional revenues from the federal government per full-time equivalent student, public institutions.
FEDREV	Institutional revenues from the federal government per full-time equivalent student, all institutions.
FTE	Full-time equivalent students in all institutions.
FTE_PRIV	Full-time equivalent students in private institutions.
FTE_PUB	Full-time equivalent students in public institutions.
FTFAC	Full-time senior instructional faculty in all institutions.
GNP	Gross national product.
OTHREV	Revenue from other sources per full-time equivalent student for all institutions, constant 1990 dollars.
OTH_PRIV	Revenue from other sources per full-time equivalent student for private institutions, constant 1990 dollars.
OTH_PUB	Revenue from other sources per full-time equivalent student for public institutions, constant 1990 dollars.
PHD	Number of PhD's conferred.
PRIVREV	Revenues from private gifts and grants per full-time equivalent student for all institutions, constant 1990 dollars.

PRIV_PRV	Revenues from private gifts and grants per full-time equivalent student for private institutions, constant 1990 dollars.
PRIV_PUB	Revenues from private gifts and grants per full-time equivalent student for public institutions, constant 1990 dollars.
PTFAC	Part-time senior instructional faculty in all institutions.
SAL	Average salary for full-time instructional faculty on 9/10 month contracts, all institutions, constant 1990 dollars.
SALOTH	Median annual income of year-round full-time men workers 25 years old and over with five or more years of postsecondary education, constant 1990 dollars.
SALPUB	Average salary for full-time instructional faculty on 9/10 month contracts, public institutions, constant 1990 dollars.
SALPRIV	Average salary for full-time instructional faculty on 9/10 month contracts, private institutions, constant 1990 dollars.
STREV	Revenues from state governments per full-time equivalent student for all institutions, constant 1990 dollars.
ST_PRIV	Revenues from state governments per full-time equivalent student for private institutions, constant 1990 dollars.
ST_PUB	Revenues from state governments per full-time equivalent student for public institutions, constant 1990 dollars.
TUITREV	Tuition and fees revenues from students per full-time equivalent student for all institutions, constant 1990 dollars.
TUIT_PRV	Tuition and fees revenues from students per full-time equivalent student for private institutions, constant 1990 dollars.
TUIT_PUB	Tuition and fees revenues from students per full-time equivalent student for public institutions, constant 1990 dollars.
UNEMP	Unemployment rate.

Chart 1

Average Faculty Salaries* 1970-1990

Public and Private Institutions

*Constant 1990 Dollars

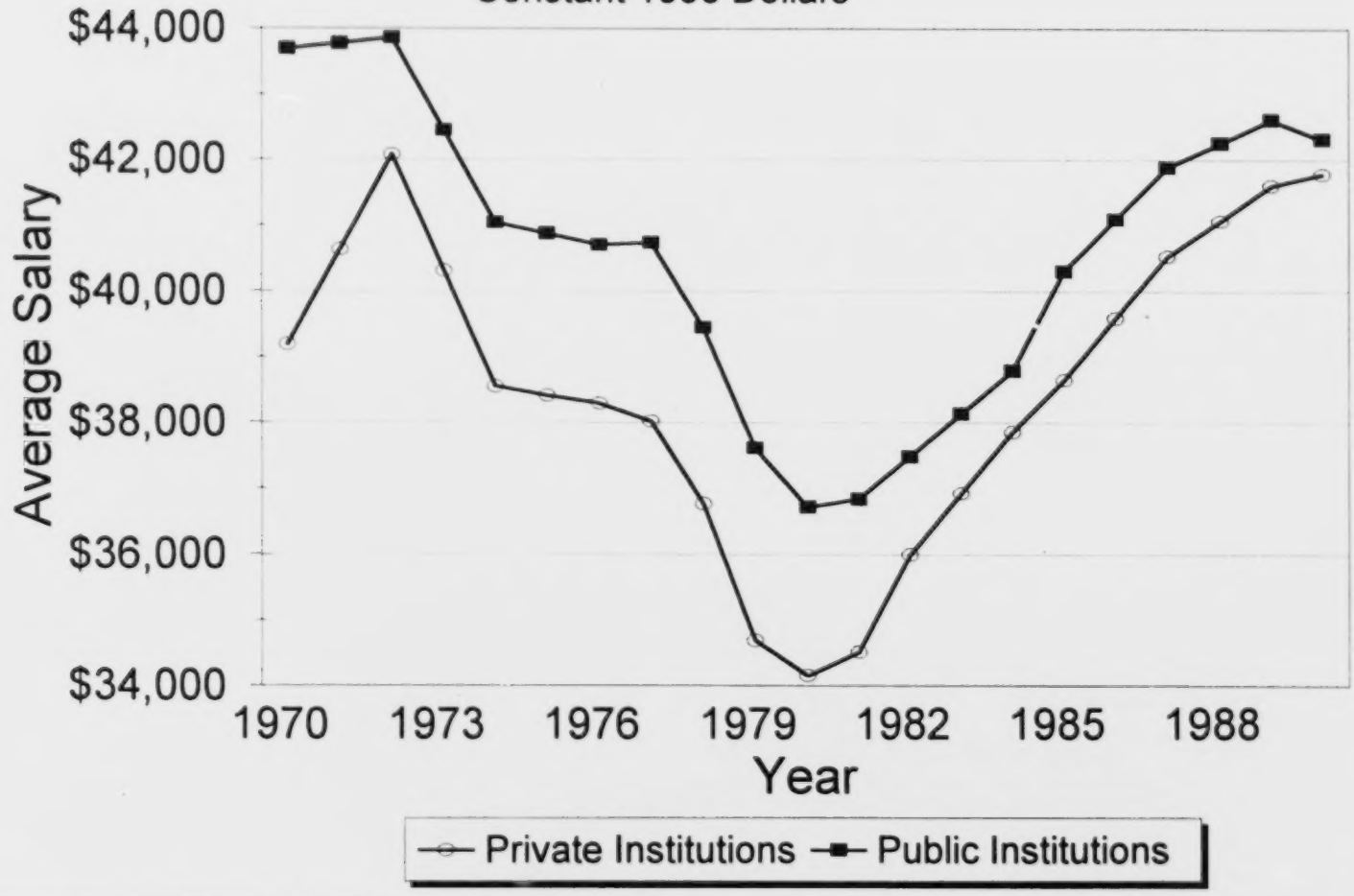

Chart 2

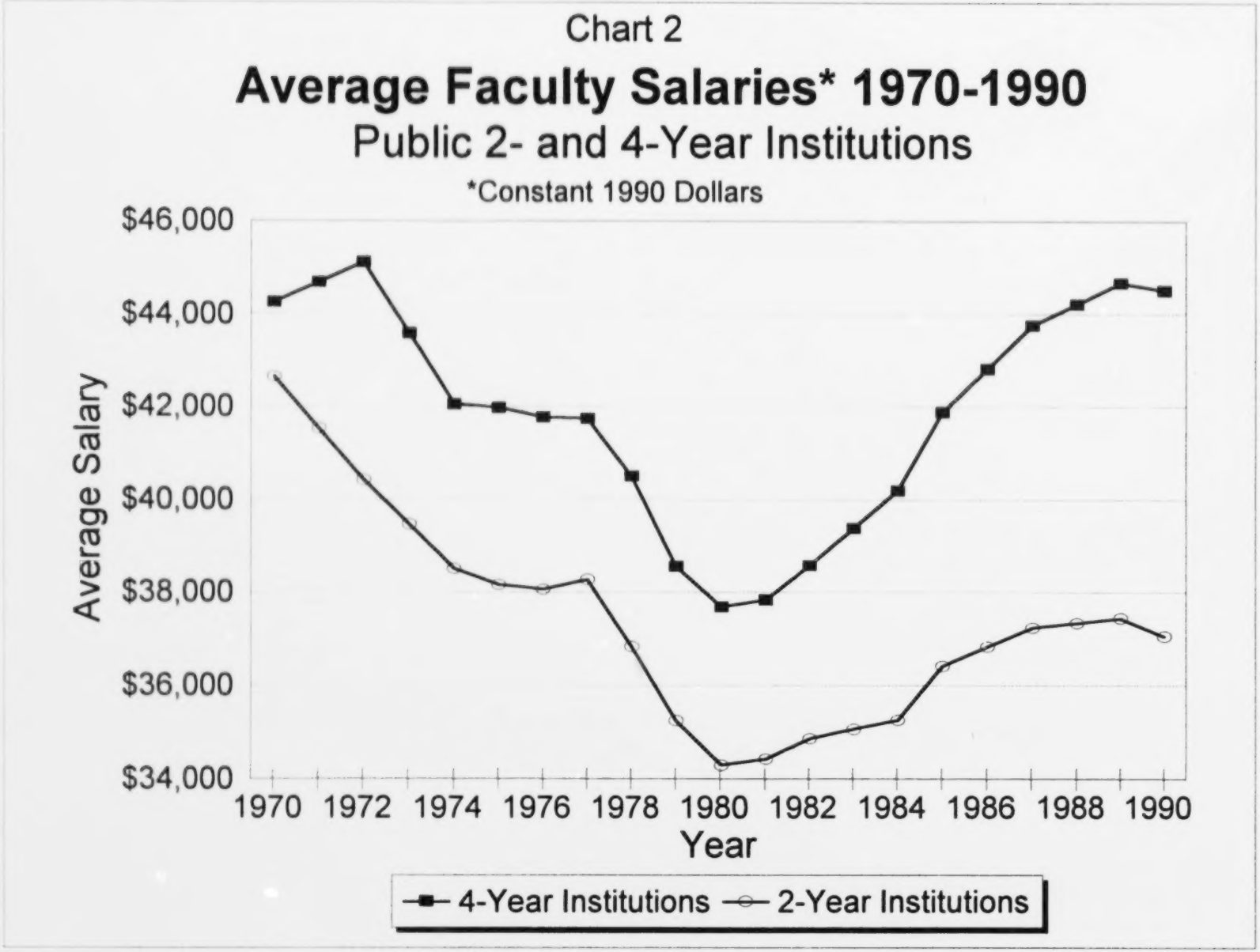
Average Faculty Salaries* 1970-1990
Public 2- and 4-Year Institutions
*Constant 1990 Dollars
$46,000
$44,000
$42,000
$40,000
$38,000
$36,000
$34,000
Average Salary
1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990
Year
4-Year Institutions
2-Year Institutions

Chart 3

Average Faculty Salaries* 1970-1990

All Faculty and Assistant Professors

*Constant 1990 Dollars

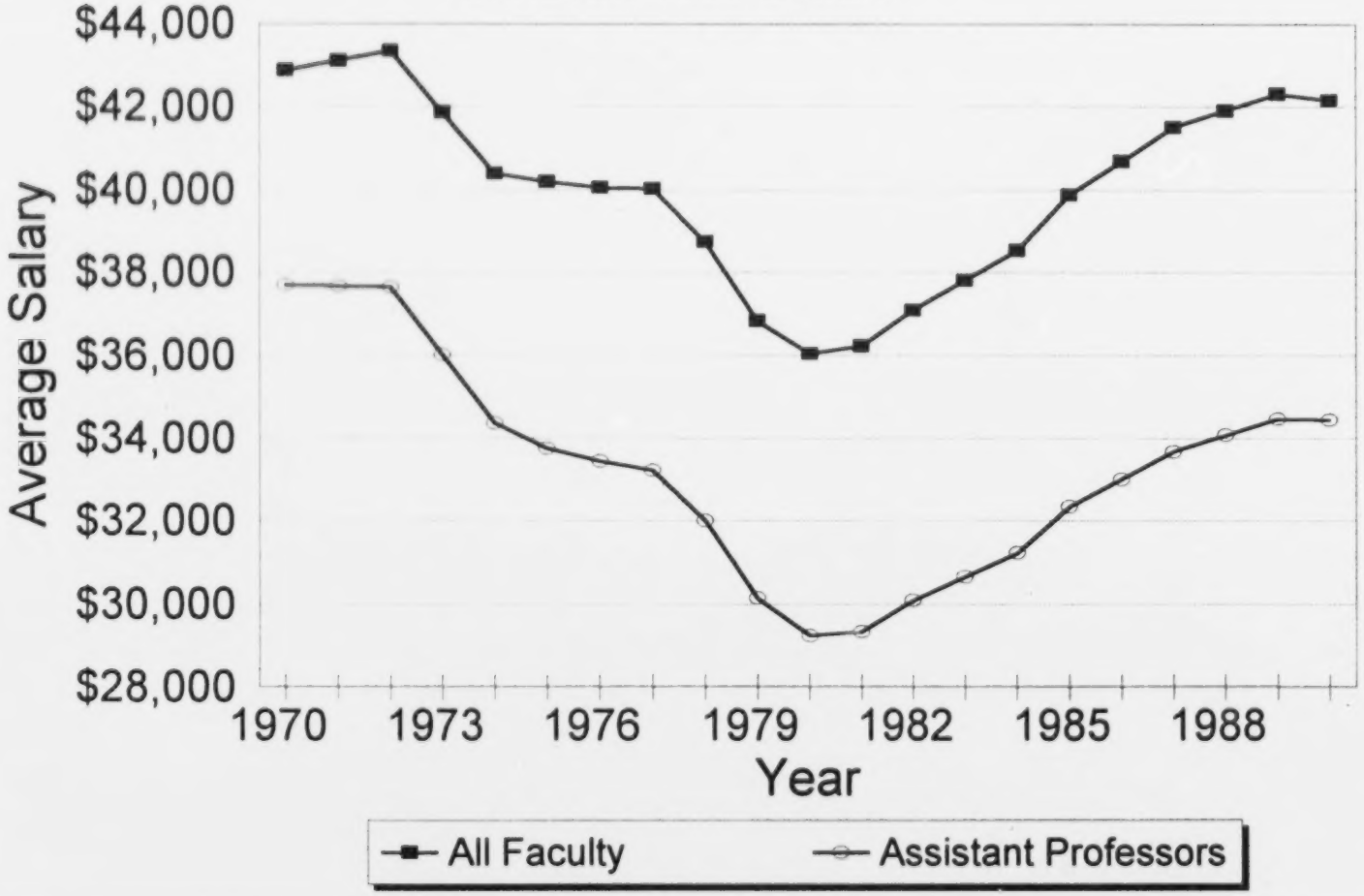

Chart 4

Average Faculty Salaries*

Men & Women, 1972-1990

(*Constant 1990 Dollars)

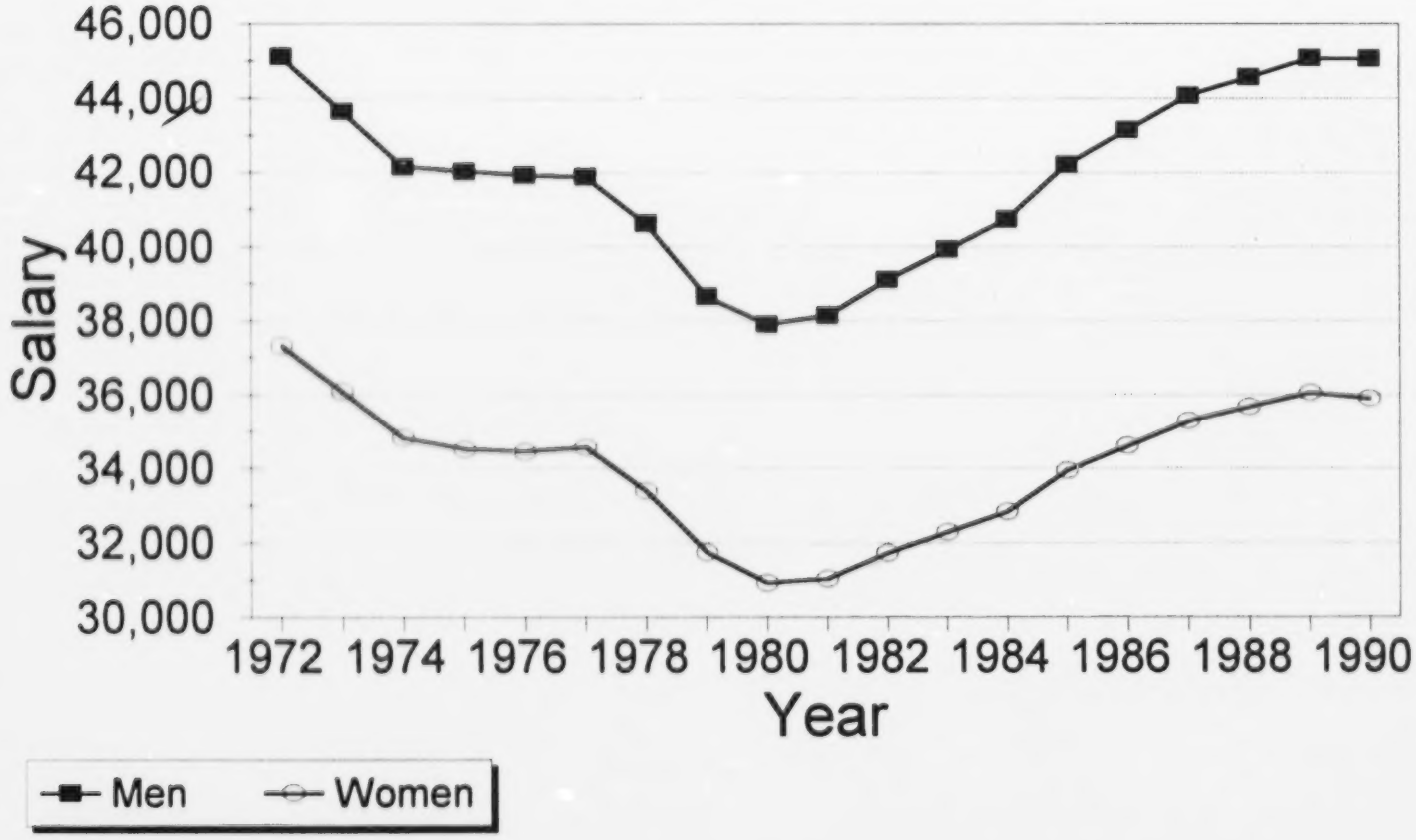

Chart 5

Average Salaries*, All Professions

Men & Women, 1970-1990

(*Constant 1990 Dollars)

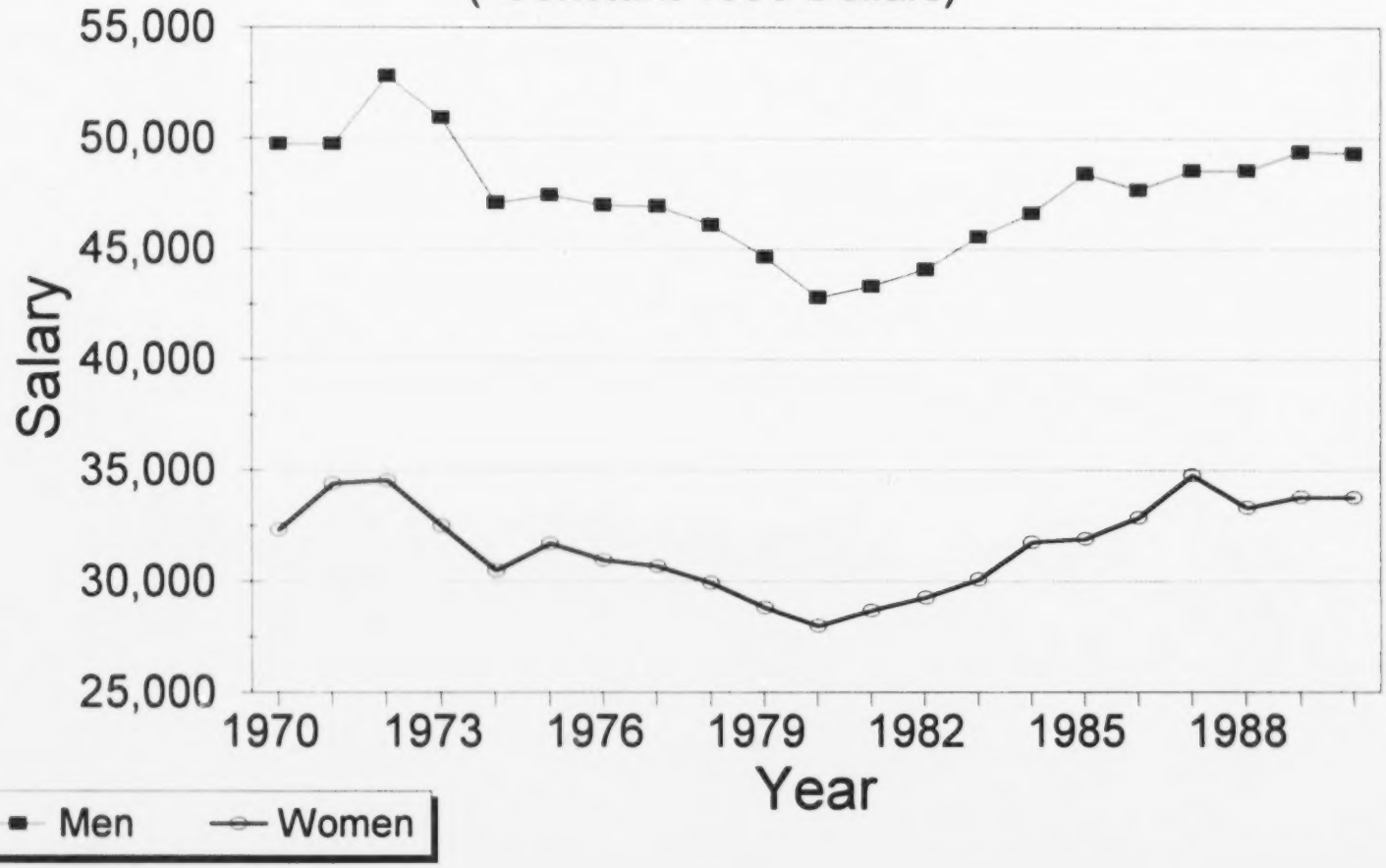

Chart 6

Salaries: Faculty, Other Workers*

1970-1990

*Men with 5+ Years Postsecondary Education

(In Constant 1990 Dollars)

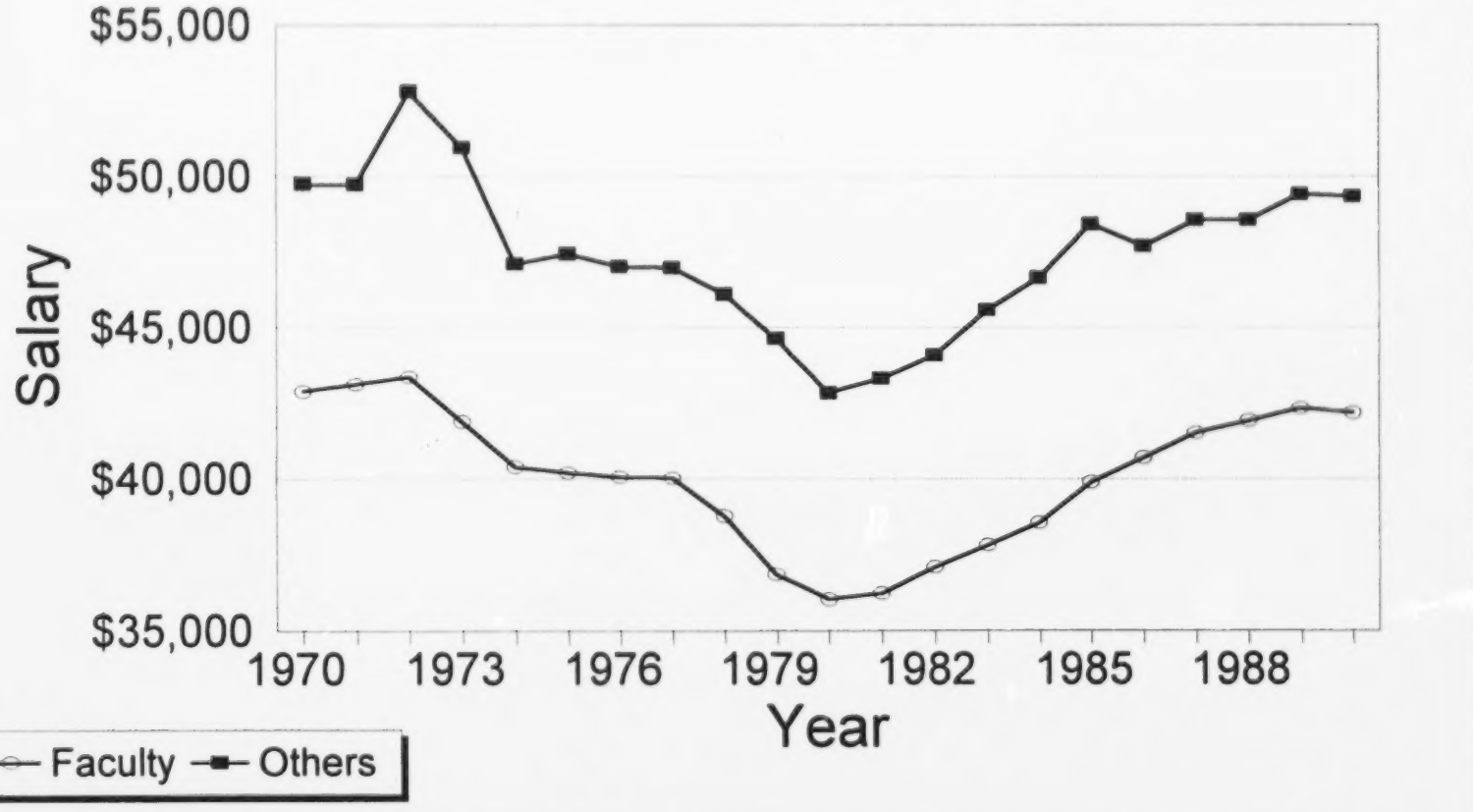

Chart 7

Total Revenues for All Institutions

1970-1990

(In Constant 1990 Dollars)

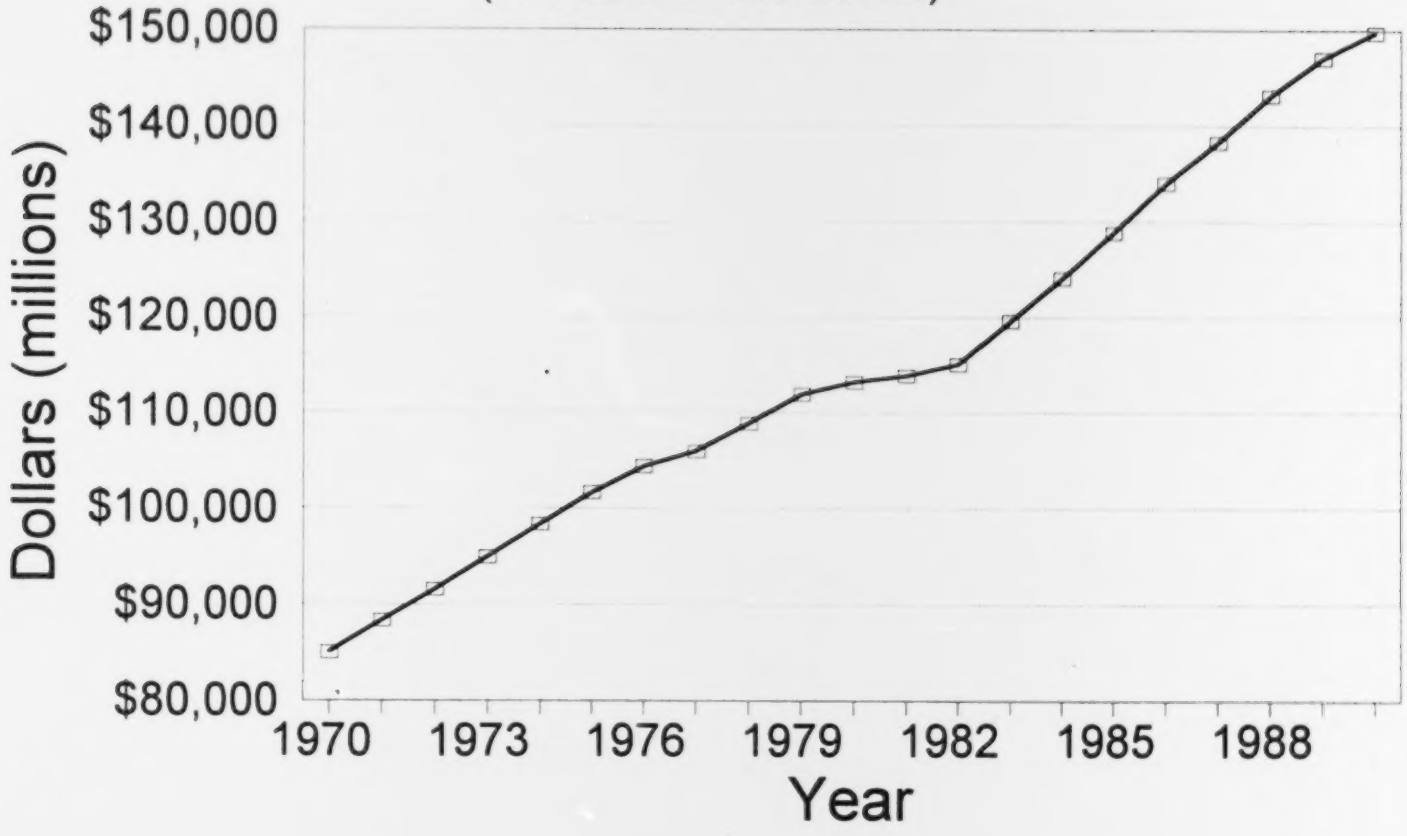

Chart 8

Revenues Per FTE Student, 1970-90

Public, Private and All Institutions

(In Constant 1990 Dollars)

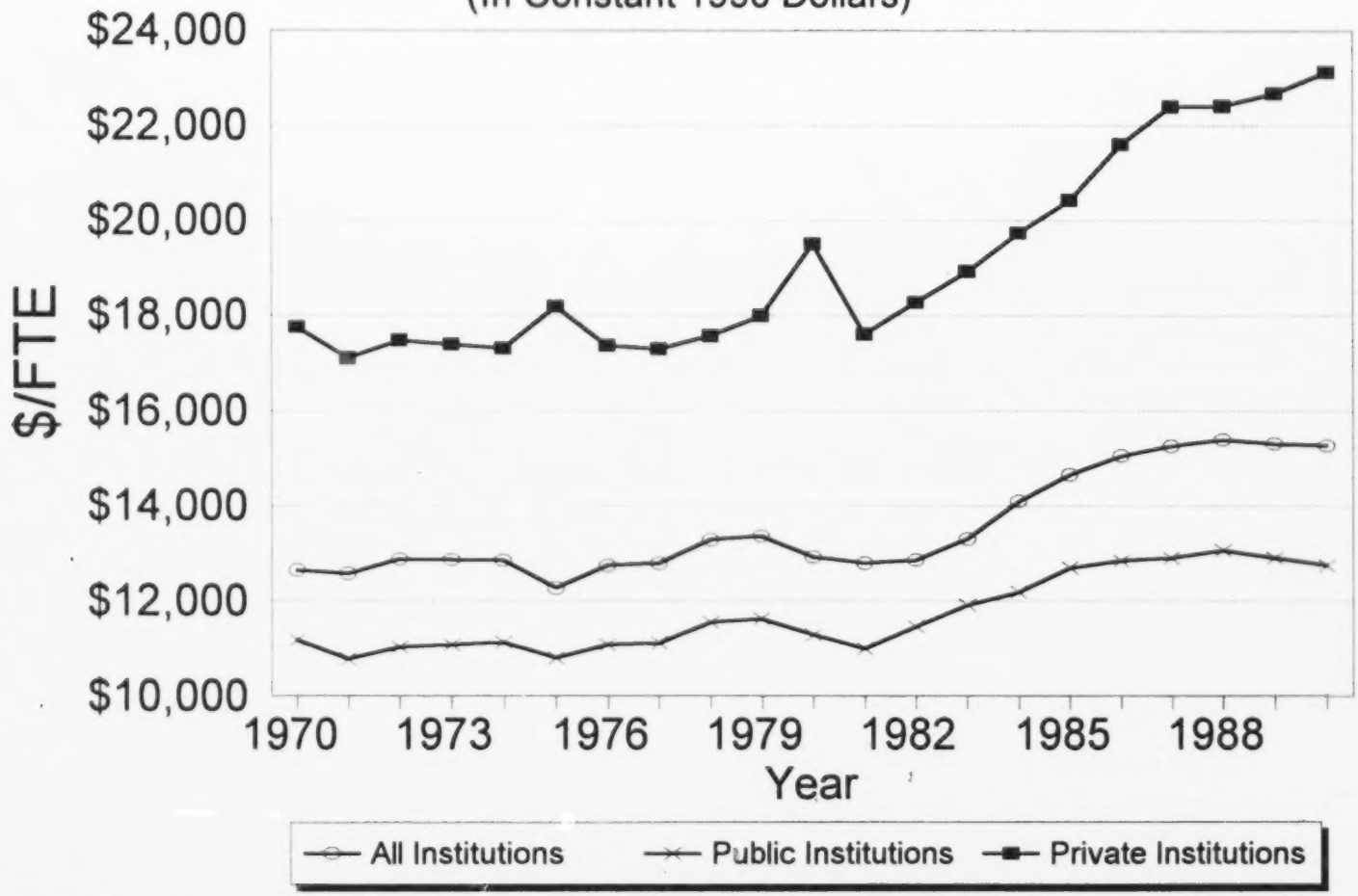

Chart 9

Full-Time Equivalent (FTE) Student

All Institutions, 1970-90

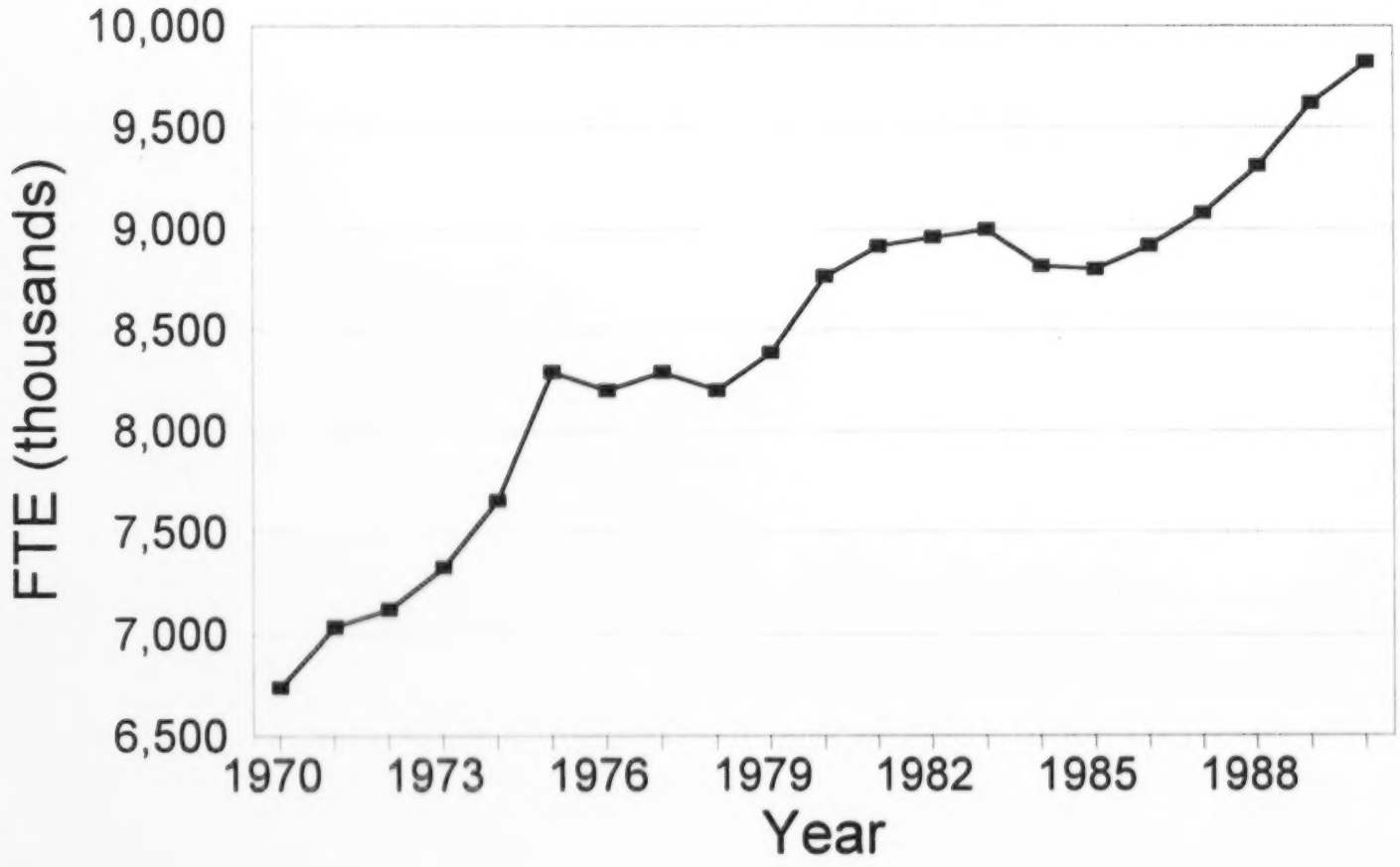

Chart 10

Gross National Product Per Capita

Constant 1990 Dollars, 1970-1990

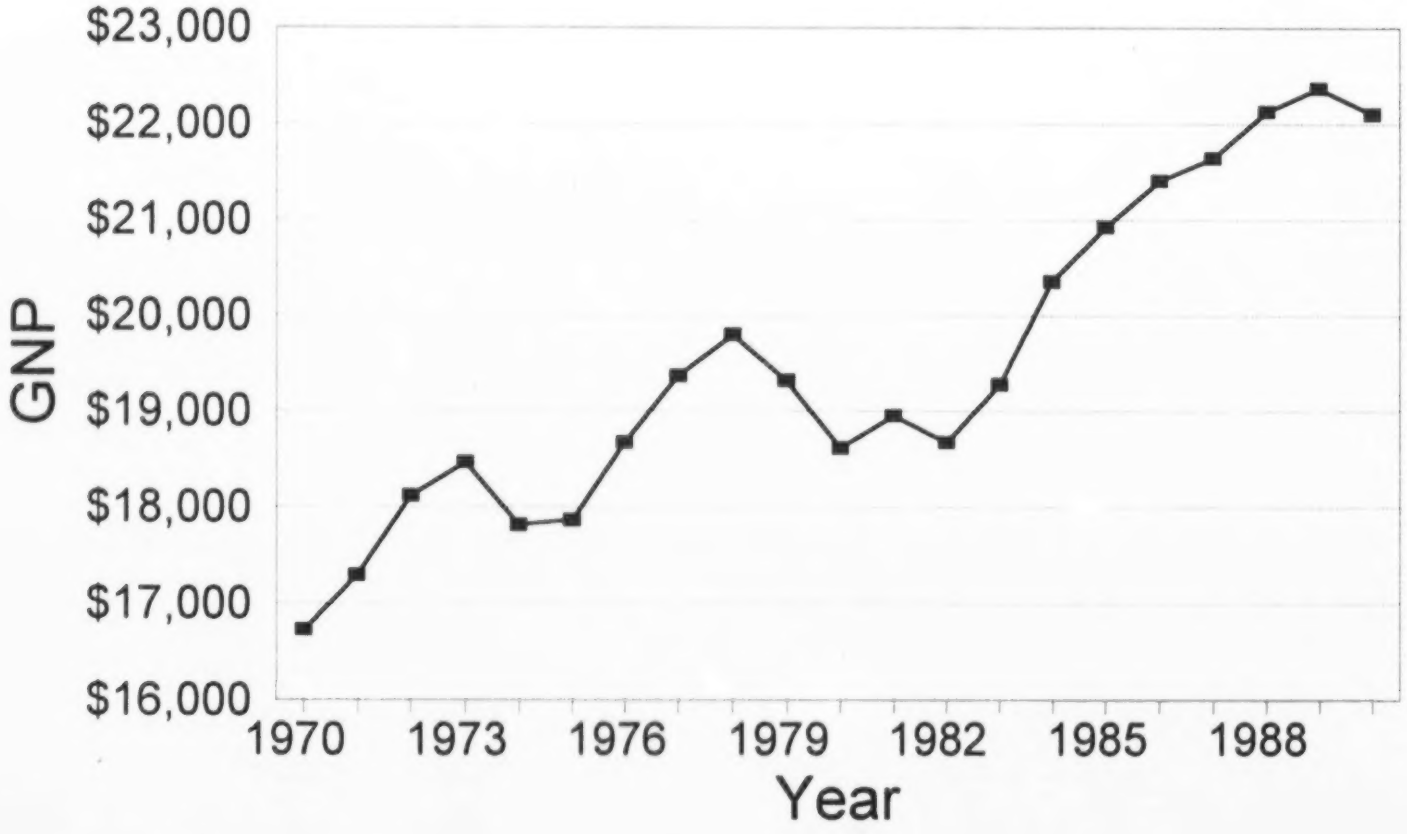

Chart 11

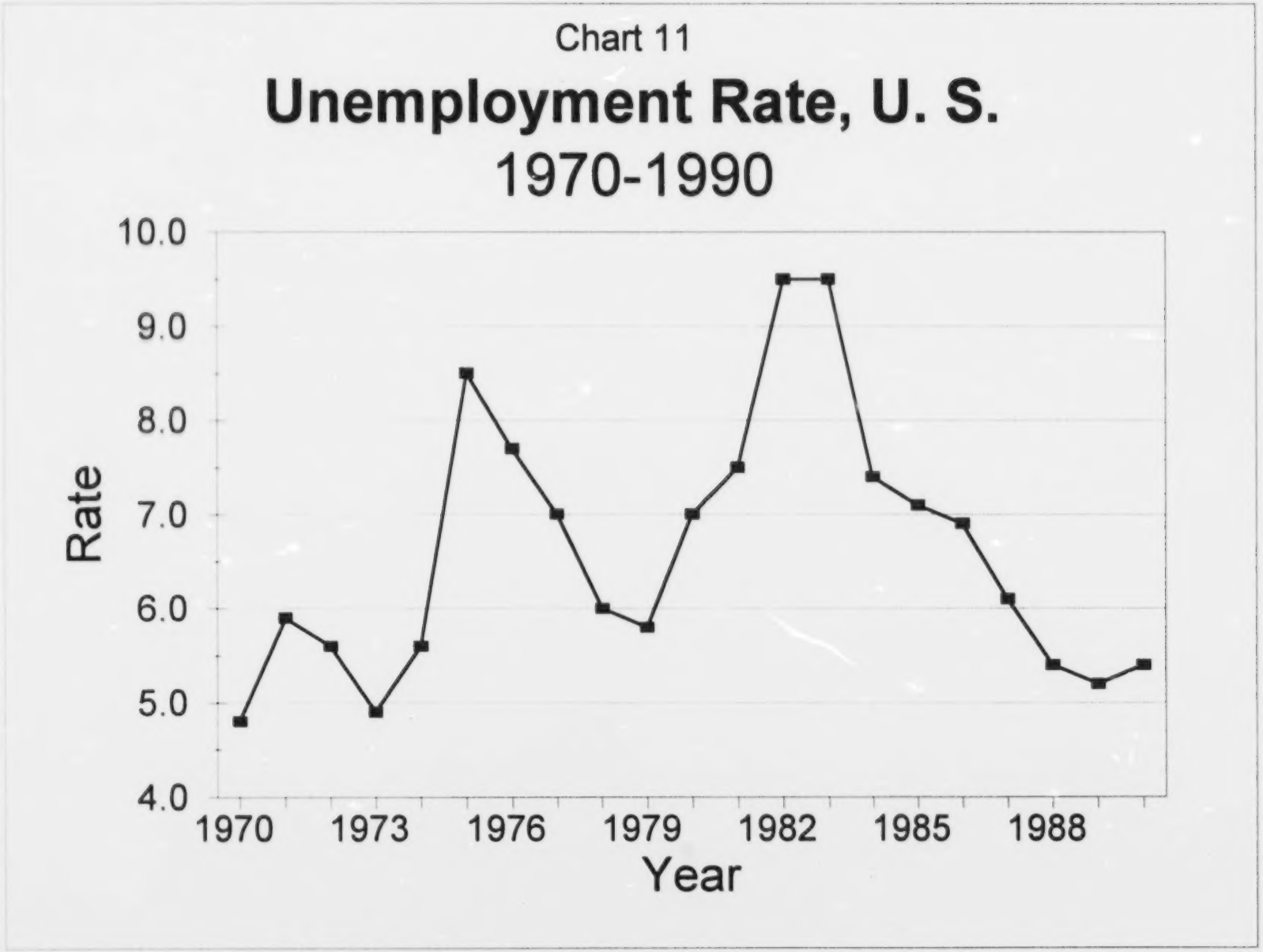
Unemployment Rate, U. S.
1970-1990
10.0
9.0
8.0
7.0
6.0
5.0
4.0
Rate
1970
1973
1976
1979
1982
1985
1988
Year

Chart 12

Consumer Price Index, U.S.

1970-1990